

## Product datasheet for RC202847L1V

## OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

## DDIT4 (NM 019058) Human Tagged ORF Clone Lentiviral Particle

**Product data:** 

**Product Type: Lentiviral Particles** 

**Product Name:** DDIT4 (NM 019058) Human Tagged ORF Clone Lentiviral Particle

Symbol:

Dig2; REDD-1; REDD1 Synonyms:

**Mammalian Cell** 

Selection:

None

Vector: pLenti-C-Myc-DDK (PS100064)

Myc-DDK Tag: NM 019058

**ORF Size:** 696 bp

**ORF Nucleotide** 

The ORF insert of this clone is exactly the same as(RC202847).

Sequence:

ACCN:

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of

reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing

variants is recommended prior to use. More info

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression

varies depending on the nature of the gene.

RefSeq: NM 019058.2

RefSeq Size: 1752 bp RefSeq ORF: 699 bp Locus ID: 54541 **UniProt ID:** Q9NX09 Cytogenetics: 10q22.1

**Protein Pathways:** mTOR signaling pathway

MW: 25.4 kDa







## **Gene Summary:**

Regulates cell growth, proliferation and survival via inhibition of the activity of the mammalian target of rapamycin complex 1 (mTORC1). Inhibition of mTORC1 is mediated by a pathway that involves DDIT4/REDD1, AKT1, the TSC1-TSC2 complex and the GTPase RHEB. Plays an important role in responses to cellular energy levels and cellular stress, including responses to hypoxia and DNA damage. Regulates p53/TP53-mediated apoptosis in response to DNA damage via its effect on mTORC1 activity. Its role in the response to hypoxia depends on the cell type; it mediates mTORC1 inhibition in fibroblasts and thymocytes, but not in hepatocytes (By similarity). Required for mTORC1-mediated defense against viral protein synthesis and virus replication (By similarity). Inhibits neuronal differentiation and neurite outgrowth mediated by NGF via its effect on mTORC1 activity. Required for normal neuron migration during embryonic brain development. Plays a role in neuronal cell death. [UniProtKB/Swiss-Prot Function]